



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/808,499

03/25/2004

Hidekazu Miyairi

0756-7275

5721

31780

7590

05/25/2010

Robinson Intellectual Property Law Office, P.C.
3975 Fair Ridge Drive
Suite 20 North
Fairfax, VA 22033

EXAMINER

WEST, JEFFREY R

ART UNIT

PAPER NUMBER

2857

MAIL DATE

DELIVERY MODE

05/25/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/808,499	Applicant(s) MIYAIRI ET AL.	
	Examiner Jeffrey R. West	Art Unit 2857	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 April 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: _____.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☒ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). 03/01/10
 13. ☒ Other: Glossary.com, "Light Scattering".

/Jeffrey R. West/
 Primary Examiner, Art Unit 2857

In response to Applicant's arguments that "the criteria to decide the acceptability of a film is solely the level of reflectivity exhibited by the surface, fixed at 55%", "Tsumura requires scanning of the surface", and "a beam projecting section 34 and a beam receiving section 36 have to be placed at specific angles, as denoted by the use of a goniometer 37" the Examiner asserts that Applicant has not clearly pointed to any claim limitations that would be precluded by such teachings.

In response to Applicant's argument that "any reference in Tsumura to 'photo-electrically transferring' is respectfully submitted to be understood to be directed to the principle of operation of the sensor (i.e. photoelectric conversion) and not construed to imply 'photography'", the Examiner asserts that such "photography" is met by the combination of Tsumura and Ozawa with Tsumura teaching determining acceptance based on comparing values of luminances with a reference value which is determined for a demanded performance of the semiconductor element in order to evaluate the crystallinity of the semiconductor film having the crystallinity that has been improved wherein the determining is based on determining locations on the surface of the film on the basis of a histogram (0076, lines 1-12), and Ozawa teaching determining areas with differences in light reflectance on a device surface (column 5, lines 12-17) by employing a camera to take a photograph of reflected light (column 6, lines 5-9) and digitizing the photographed image to make a digital image (column 7, lines 63-65).

In response to Applicant's argument that "Tsumura does not disclose or suggest 'scattered light' as this term would be understood to a person of ordinary skill in the art familiar with photographic techniques, such as dark field photography as disclosed in the subject application", that "the present invention is directed to taking a photograph, such as a dark field photograph, of scattered light and analyzing luminance in the digital image" and that "a photograph of scattered light, or a dark field photograph, is readily understood by those of ordinary skill in the art to mean a photograph that excludes unscattered light and is wholly unrelated to measuring reflection intensity of a laser beam as described in Tsumura" the Examiner asserts that the claims do not contain any limitation specifying and/or requiring such dark field photography.

Additionally, the Examiner asserts Tsumura does disclose that "it is possible to select an incident angle at which the reflection beam intensity changes remarkably with a change in the crystal state" and "On the surface of the p-Si substrate, however, the defective positions are scattered in many cases and therefore the most of the regions is non-defective, so that the surface of the p-Si substrate may be scanned thoroughly to then obtain a histogram of the reflectivity in order to decide a region which does not fall in a population of the acceptable ones to be non-acceptable" (see paragraphs 0075-0076). The Examiner asserts that this disclosure adheres to what one having ordinary skill in the art would consider to be scattering based on, for example, U.S. Patent No. 4,768,878 to Heine et al. which discloses the conventional means for locating defects in a non-structured surface wherein "the surface of the unit under test, which is to be investigated, is scanned with a laser beam" and when "the laser beam strikes a defective location, then the light is scattered or, respectively, defracted and can be detected as either reflected light or transmitted light via an opto-electronic receiver which supplies a signal corresponding to the detected defect" (column 1, lines 15-40) and Glossary.com, "Light Scattering" (attached) which defines "scattering" as, "deviation of reflected radiation from the angle predicted by the law of reflection".

In response to Applicant's argument that "the Official Action has not explained how the boundary line detecting method of Ozawa, which is designed for simple predetermined shapes, may be applied to the reflected beams of Tsumura", the Examiner asserts that the invention of Tsumura does teach determining acceptance based on comparing values of luminances with a reference value which is determined for a demanded performance of the semiconductor element in order to evaluate the crystallinity of the semiconductor film having the crystallinity that has been improved wherein the determining is based on determining locations on the surface of the film on the basis of a histogram (Tsumura; 0076, lines 1-12) and one having ordinary skill in the art would recognize the ability to incorporate Ozawa's teaching of a method to determine areas with differences in light reflectance on a device surface (Ozawa; column 5, lines 12-17), as such determination of areas with different light reflectances on a device surface in Ozawa would determine the locations of different light reflectances in Tsumura.

In response to Applicant's argument that "if Tsumura were modified to include the additional computational requirements of Ozawa, then Tsumura would not achieve its result 'speedily and simply' and would be rendered unsatisfactory for its intended purpose", the Examiner asserts that the proposed combination would still be satisfactory for its intended purpose as the proposed combination would still provide means for performing film quality inspection.

/JRW/